

REMARKS

The above-identified patent application has been reviewed in light of the Examiner's non-final Action dated December 9, 2008. In light of the amendments presented above and the arguments presented below, Applicants respectfully submit that the claims are in condition for allowance.

The Examiner has indicated that the oath or declaration is defective and that a new oath or declaration in compliance is required. The specification is objected to because it improperly makes specific reference to the claims. Claims 13 and 18 are objected to for lacking proper antecedent basis. Claims 11-21 have been rejected under 35 U.S.C. § 112 as being indefinite. Claims 1 and 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,207,153 to Thomason ("Thomason") in view of DE 3729911 to Braun et al. ("Braun"). Claims 12-21 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Thomason in view of Braun and further in view of Applicants admitted prior art ("AAPA").

Claims 1, 12-15, and 20 have been amended. Claims 10 and 11 have been canceled. Claims 22-28 were previously canceled. Accordingly, Claims 1-9, 12-21 and 29-35 are now pending.

Oath or Declaration:

The Examiner has found the declaration defective because it was not signed. On February 8, 2006 a Petition to Correct Inventorship pursuant to 37 C.F.R. § 1.48(a) and associated statements were filed. However, a new declaration signed by all of the inventors as also required by the rules was not included. Accordingly, submitted herewith is a declaration signed by all inventors. Accordingly, Applicants respectfully request that this objection be withdrawn.

Objection to the Drawings:

The Examiner has objected to the drawings as failing to show the structure for adjusting the lead frequency as described in the specification. Although Claim 15 is directed to a device wherein the lead frequency may be adjusted, the structure for adjusting frequency is a conventional feature that is not essential for a proper understanding of the

invention. "Conventional features disclosed in the description and claims, where their detailed illustration is not essential for a proper understanding of the invention, should be illustrated in the drawing in the form of a graphical drawing symbol or a labeled representation (e.g., a labeled rectangular box)." 37 C.F.R § 1.83(a). As described in the description, "the central controller 7 comprises an oscillator (not shown), by means of which a lead frequency is generated...the lead frequency may be varied by frequency division." (Specification, pg. 7, ll. 7-10). Moreover, the frequency generators 16 are connected to the central controller 7 via connecting leads 17. (Specification, pg. 10, ll. 26-30). Applicants maintain that one skilled in the art would appreciate that controllers, oscillators, and frequency generators can be used to adjust frequency; thus, their detailed illustration is not essential for a proper understanding of the invention. Moreover, the controller and frequency generators are depicted in the drawings as labeled rectangular boxes in accordance with § 1.83(a). Therefore, Applicants respectfully request that the objection to the drawings be withdrawn.

Objection to the Specification:

The Examiner has objected to the Specification as not providing sub-headings for the various sections it contains. 37 C.F.R. § 1.77(b) states the specification "should" include section headings, a mere suggestion or recommendation. Therefore, Applicants respectfully submit that the use of sub-headings is plainly discretionary and that non-compliance is not objectionable.

The Examiner has further objected to the specification for improperly making specific reference to the claims. The specification has been amended to remove the specific references to the claims. Accordingly, Applicants respectfully request that the objections to the specification be withdrawn.

Objection to the Claims:

The Examiner has objected to Claims 13 and 18 for lacking proper antecedent basis. Claim 12, from which Claim 13 depends, has been amended to provide antecedent basis for the objected-to language. Claim 18, which also depends on Claim 12, is now believed to contain proper antecedent basis for the phrase "said rotary cycle apparatus". Therefore,

Applicants request withdrawal of the objection to the claims.

Claim Rejections Under 35 U.S.C. § 112, Second Paragraph:

The Examiner has rejected Claims 11-21 as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. Claim 11 has been canceled and Claims 12-15 and 20 have been amended to more particularly point out and distinctly claim the subject matter of the invention.

The Examiner stated that Claim 12 was vague and indefinite. Applicants have amended Claim 12 to define that the conveying unit includes a rotary cycle apparatus and drive means. Moreover, Claim 12 articulates that the objects, such as beverage cans, are arranged on the rotary cycle apparatus and that the drive means rotates the objects. Support for this amendment can be found for instance at page 5, lines 24-30. Accordingly, amended Claim 12 clearly and precisely defines the subject matter and scope of the claim.

Claim 13 has been amended to clarify that the conveyer drive means generates rotation about an axis of symmetry of an object.

Claim 14 has been amended to more definitely state that a lead frequency defining the clock pulse is preset by the central controller.

Claim 15 has been amended to clarify that the lead frequency of one embodiment of the present invention is capable of adjusting.

Claim 20 has been amended to clearly state that the lead frequency of one embodiment of the present invention is capable of adapting to operating frequencies of the processing stations.

Claims 16-21 depend from now allowable claims, and are believed allowable.

Therefore, Applicants respectfully submit that Claims 11-21, as amended, are sufficiently definite to meet the requirements of 35 U.S.C. § 112, second paragraph and request withdrawal of the rejection.

Claim Rejections Under 35 U.S.C. § 103

The Examiner has rejected Claims 1 and 11 under 35 U.S.C. § 103(a) as being obvious over Thomason in view of Braun. In addition, the Examiner has rejected Claims 12-21 under 35 U.S.C. § 103(a) as being obvious over a combination of Thomason, Braun,

and AAPA. In order to establish a *prima facie* case of obviousness under §103, there must be some suggestion or motivation to modify the reference or to combine the reference teachings, there must be a reasonable expectation of success, and the prior art reference or references must teach or suggest all of the claim limitations. (MPEP §2143). Obviousness rejections cannot be based on mere conclusory statements; rather, there must be an articulated reasoning and a rational underpinning to support and obvious rejection. *KSR Int'l Co. v. Teleflex Inc.*, 82 U.S.P.Q.2d 1385, 1396 (2007). Further, all of the claimed elements must be found in the cited references.

The cited references do not teach, suggest, or describe using a clock pulse to synchronize a conveying unit and a processing station, generating starting signals, and predetermining a duration of the transmission of a clock pulse. Moreover, the cited references do not teach, suggest, or describe a device for processing a surface of an object which substantially eliminates fluctuations in the information transfer from the central controller, thereby increasing product quality. Accordingly, reconsideration and withdrawal of the rejections of the claims as obvious in view of the cited reference are respectfully requested.

The Thomason reference is generally directed to an apparatus for applying printed matter onto objects. More particularly, Thomason discusses a linear conveyer formed from multiple support bodies mounted for free rotation about an axis transverse to the direction of movement of the conveyer. (Thomason, col. 1, ll. 46-53). In operation, an accelerator device acts to rotate the conveyer bodies thereby rotating the objects on the conveyer. (Thomason, Abstract). Contrary to the Examiner's assertion that Thomason includes an inherent central controller, no such controller is disclosed nor would one skilled in the art understand Thomason to require a central controller. Moreover, there is no teaching, suggestion, or disclosure of transporting objects into a desired position at the processing station as recited by the claims. In addition, as acknowledged by the Examiner, Thomason does not disclose the use of a clock pulse to synchronize the operations of the conveying unit and the processing stations. (Office Action dated December 9, 2008, p. 5.) For disclosure of a clock pulse, the Examiner cites the Braun reference.

The Braun reference is cited in connection with claim elements related to a clock pulse. The Braun reference is generally related to synchronizing processing stations.

(Braun, Abstract). Although the Braun reference does disclose some of the claimed features, the Braun Abstract is not enabling. The Examiner states that Braun teaches the conventional use of clock pulse generated by incremental transmitters on the individual processing stations. However, the Braun reference does not teach, suggest, or disclose how such elements are interrelated. The Examiner concludes that it would have been an obvious matter of design choice to modify Thomason to obtain the invention as specified in Claim 1. The Applicant respectfully traverses the Examiner's conclusion.

More specifically, the Examiner has pointed to no suggestion where one skilled in the art would combine the teachings of Thomason with Braun, except from using Applicants present invention as a template and through hindsight reconstruction of the present claims. Rejections on obviousness grounds cannot be sustained by mere conclusory statements. Rather, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. Moreover, if the Examiner is making such conclusion based on his own knowledge, rather than material explicitly stated in the cited prior art references, Applicant respectfully requests an Examiner's Affidavit under 37 CFR 104(d)(2), and reserves the right provided under such section to submit counter affidavits, all prior to the Examiner making the present case final.

Nonetheless, in order to facilitate prosecution, Claim 1 has been amended to incorporate the limitations of Claims 10 and 11. That is, in at least one embodiment the claimed invention is directed to a device for processing the surface of objects. More particularly, the device of the present invention comprises at least one processing station, a conveying unit for transporting objects into desired positions at the processing station, a central controller which synchronizes the functions of the conveying unit and the at least one processing station by a clock pulse correlated with transport of each object and where the controller controls each processing station, wherein starting signals are generated in the central controller, by which individual processing stations are capable of starting independently, and wherein by predetermining a duration of transmission of the clock pulse to a processing station, a duration of a function of the processing station is capable of being predefined by the central controller. As discussed herein, the cited references do not teach, suggest, or describe using one clock pulse instead of multiple single signals for each processing unit nor do they describe specifying such clock pulse with regard to duration and

starting time. Additionally, the generation of starting signals and the duration of transmittance of the clock pulse is not disclosed by the cited references.

In another embodiment, the conveying unit of the claimed invention further comprises a rotary cycle apparatus and drive means. In particular, the cited references do not teach, suggest, or describe arranging objects in a circumferential orientation on a rotary cycle apparatus. Moreover, the cited references do not teach, suggest, or describe drive means rotating the objects on the rotary cycle apparatus.

Even if the Braun reference is considered enabling, in order to establish a *prima facie* case of obviousness the references must teach or suggest all of the claimed elements. Thomason and Braun do not teach, suggest, or disclose all of the elements of the claimed invention. In particular, amended Claim 1 requires predetermining a duration of transmission of the clock pulse to a processing station so that a duration of a function of the processing station is capable of being predefined by the central controller. No reference, alone or in combination, discloses predetermining a duration of a clock pulse. Amended Claim 12 requires that the conveying unit further comprises a rotary cycle apparatus and drive means, wherein the objects, such as beverage cans, are arranged in a circumferential orientation on the rotary cycle apparatus, wherein the drive means rotates the objects on the rotary cycle apparatus. No reference teaches arranging objects in a circumferential orientation on a rotary cycle apparatus of a conveying unit. Amended Claim 13 requires the conveyer unit's drive means to generate rotation about an axis of symmetry of the objects. No reference teaches rotating objects about an axis of symmetry in dependence upon an incremental encoder's position control signals.

Furthermore, with respect to Claims 12 and 13 and as acknowledged by the Examiner, neither Thomason nor Braun specifically state that incremental encoders are used. For disclosure of incremental encoders, the Examiner cites page 1, ll. 25-29 of Applicant's specification. The Examiner contends that the AAPA teaches that incremental encoders are conventionally used for detection of the rotary position of objects. The Examiner mischaracterizes the AAPA. As explained on page 1, ll. 20-37 through page 2, ll. 3, even though incremental encoders *may* have been previously used, Applicant's have identified problems with prior uses of incremental encoders. More specifically, Applicant's have identified that prior uses of incremental encoders had disadvantages such as difficult signal

transmission, transmission delay, and transmission fluctuations. As such, embodiments of the claimed invention are directed to ameliorating the identified disadvantages. In particular, in one embodiment of the present invention, because a clock pulse is used to synchronize the conveying unit and the processing station, starting signals are generated so that individual processing stations are capable of starting independently. When the duration of the transmission of the clock pulse has been predetermined, fluctuations in the information transfer from the central controller can be eliminated; thus, leading to increased product quality.

In this case, Applicants respectfully submit that the cited references do not disclose each and every element of the pending claims, whether those references are considered alone or in combination. Further, the elements are not arranged as required by the claim language, do not suggest or provide motivation to make the suggested combination, and the rejections are based on conclusory statements and hindsight. As stated above, the Thomason and Braun references do not teach all of the elements of Applicant's invention as recited in amended Claim 1. Therefore, amended Claim 1 is not obvious in view of the proposed combination of the Thomason and Braun references. In addition, the AAPA does not provide for the deficiencies in the disclosure of Thomason and Braun. As such, Claims 12-21, which depend from amended Claim 1, are believed patentable since these claims depend from Claim 1 which is now believed allowable. Accordingly, for at least these reasons, reconsideration and withdrawal of the rejections of the claims as obvious in view of the cited references are respectfully requested.

Conclusion:

Based on the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. Applicants also respectfully traverse the remainder of the Examiner's assertions as to what is disclosed in and/or taught by Thomason and Braun. That is, since the arguments made herein are believed to sufficiently address the rejections, any assertions by the Examiner which are not specifically addressed are not admitted as true. Furthermore, any arguments concerning motivation to combine, rationale to combine, etc. and not specifically provided in this response are not waived. In the event that a telephone conversation would further prosecution and/or

expedite allowance, the Examiner is invited to contact the undersigned attorney at the Examiner's earliest convenience.

Respectfully submitted,

SHERIDAN ROSS P.C.

By:

Bruce A. Kugler

Reg. No. 38,942

1560 Broadway, Suite 1200

Denver, Colorado 80202

Telephone: 303-863-9700

Date: April 2, 2009